

**FACT SHEET FOR
STATE WASTE DISCHARGE
PERMIT NO. ST-9117**

**Willow Wind Organic Farms
dba Grandview Frozen Foods**

SUMMARY

This facility is considered a significant industrial user (SIU) based upon flow volume, but is not subject to categorical pretreatment standards. Transfer of the Permit from Kenyon Zero Storage Inc. to Willow Wind Organic Farms was received at the Department on April 28, 2003. Prior to that, the permit had been transferred from Agri Frozen Foods to Kenyon Zero Storage, Inc. in June of 2001. Willow Wind Organic Farms began operating the facility and discharging to the Grandview POTW in June of 2003. This was the first discharge since Agri Frozen Foods ceased operation in November of 2000. Kenyon Zero Storage, Inc. never conducted production at the site nor reported any discharge during the time the permit was in its possession.

Willow Wind Organic Farms effluent has on occasion violated the City of Grandview's sewer use ordinance with pH excursions below pH 5. The cause or causes of these excursions are at present unknown. Willow Wind Organic Farms and the City of Grandview are conducting joint investigations to determine the source of these excursions.

Willow Wind Organic Farms is a new operation conducted in an old facility. The wasteload allotment granted them by the City of Grandview drives the temporary effluent limitations, which are based on previous operations conducted at the facility. The City and the Permittee will review these limits after a year of operation and amend the effluent limitations to better reflect actual production requirements of the Permittee, if necessary. The review will be the basis for an Amendment to Appendix A of the Permittee's Operation and Maintenance Manual. The amended Appendix A will then contain the enforceable effluent limitations for the remainder of the permit cycle.

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INTRODUCTION

This fact sheet is a companion document to the Draft State Waste Discharge Permit No. ST-9117. The Department of Ecology (the Department) is proposing to reissue this permit, which will allow discharge of wastewater to the City of Grandview POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the State is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities, which discharge into public waters of the State. Regulations adopted by the State include procedures for issuing permits and establish requirements which are to be included in the proposed permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A -- Public Involvement Information.

This fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. This fact sheet will not be revised. Changes to the proposed permit will be addressed in Appendix C -- Response to Comments.

| GENERAL INFORMATION | |
|-------------------------------------|--|
| Applicant | Willow Wind Organic Farms |
| Facility Name and Address | Grandview Frozen Foods, Inc. P.O. Box 400 206 Avenue A Grandview WA 98930 |
| Type of Facility: | Vegetable Processing |
| Facility Discharge Location | Latitude: 46° 15' 16.1" N Longitude: 119° 51' 16.6" W |
| Treatment Plant Receiving Discharge | City of Grandview |
| Contact at Facility | Marlin Crabtree - Plant Manager (509) 882-3322 |
| Responsible Official | Steve Walser – Owner / President (509) 624-3700 |

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

This facility is considered a significant industrial user (SIU) based upon flow volume, but is not subject to categorical pretreatment standards. Transfer of the Permit from Kenyon Zero Storage Inc. to Willow Wind Organic Farms was received at the Department on April 28, 2003. Prior to that, the permit had been transferred from Agri Frozen Foods to Kenyon Zero Storage, Inc. in June of 2001. Willow Wind Organic Farms began operating the facility and discharging to the Grandview POTW in June of 2003. This was the first discharge since Agri Frozen Foods ceased operation in November of 2000. Kenyon Zero Storage, Inc. never conducted production at the site nor reported any discharge during the time the permit was in its possession.

Industrial Processes

The Permittee operates the plant 7 days a week between the months of June and October to produce frozen sugar snap peas, whole kernel and cob corn, green beans and green peas. During the winter the plant operates five days a week for repackaging. Approximately fifty employees work two shifts to produce 2.5 million pounds of frozen sugar snap peas, 20 million pounds of frozen sweet corn, 9.5 million pounds of green beans and 5 million pounds of green peas annually. The plant will operate 40 weeks per year.

Fresh vegetables are cleaned, blanched and frozen in the main building. A second waste stream is generated from repackaging of frozen product in a second building. Wash down water is collected in floor drains and directed to a holding pit. From the pit the effluent is pumped over Bauer screen and into the sewer. Flow volume resulting from this operation is less than 500 gallons per day.

Effluent discharged to the Grandview POTW is comprised of the following waste streams.

| Process | Waste Stream Name | Waste Stream ID # | Batch or Continuous |
|-------------------------|---------------------|-------------------|---------------------|
| Vegetable Wash/Cleaning | Wash Water – Olneys | #1 | Continuous |
| Vegetable Blanching | Cabin Plant | #2 | Continuous |
| Vegetable Freezing | Compressor Water | #3 | Continuous |
| Cleanup | Wash Down Water | #4 | Continuous |
| Repack Line | Wash Down Water | Repack Building | Batch |

Treatment Processes

All inside waste is directed to floor drains. Wastewater from an outdoor sump is pumped into the plant for re-use to facilitate flushing of solids. The wastestream is directed through two hydro-sieves before being sent back to the 10 by 14-foot sump. City of Grandview sampling is conducted in the main effluent pipe downstream of the tank containing the hydro sieved effluent.

Wash down water used in the repack line is hydro sieved and collected in a floor basin. Effluent from this basin is sampled at least two times per week when this operation is in progress. A series of four grab samples are composited for testing.

PERMIT STATUS

The previous permit for this facility was a Temporary Permit issued on April 3, 1996.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on September 26, 2003.

During previous permit, the Permittee had no effluent violations reported by the Department, or with the City of Grandview except for the most recent months. The records show violations based on local limits established by the Grandview POTW and codified in ordinance have occurred for pH. This has resulted in surcharges being levied against the Permittee. The Permittee and City of Grandview are working together to determine the source of these transient low pH excursions.

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge was characterized as follows in the permit application received September 18, 2003.

| Parameter | Minimum | Maximum | Average |
|------------------------|----------|-------------|-------------|
| BOD (5 day) | 488 mg/L | 18,900 mg/L | 6450 mg/L |
| Total Suspended Solids | 50 mg/L | 5200 mg/L | 1352 mg/L |
| Flow | 0 GPD | 980,000 GPD | 312,090 GPD |

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable methods of prevention, control and treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring AKART discharges to waters of the State (WAC 173-216-110)

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

In order to protect the Grandview POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by the Grandview POTW and codified in ordinance.

Following several years of study and sampling, an Engineering Report was prepared for the City by Huibregtse, Louman Associates, and submitted to the Department in February 1997. In this report, the treatment capacity of the Grandview POTW is evaluated, and this capacity is apportioned among the industrial dischargers (mainly food processors) as well as domestic loading. Waste streams from food processing industries vary widely in flow volume and strength with the type and tonnage of crops being processed. Allowable levels of flow, BOD and TSS are divided among contributors to the POTW on a month to month basis. Current limits for the Permittee are shown in Table 1. below.

Willow Wind Organic Farms is a new operation, which has not as yet been able to establish its wastewater load characteristics. Therefore, the proposed temporary limits are based on estimation. The Permittee and the City of Grandview are to determine appropriate limits based upon empirical evidence and reasonable projections. An update of Appendix A of the Operations and Maintenance Manual containing the reviewed limits is required to be submitted to the Department for approval by April 4, 2005. Upon approval, the updated Appendix A will contain the enforceable limits for the remainder of the permit cycle.

Table 1

| Parameter | Jan | Feb | Mar | Apr | May | Jun |
|----------------------|-------|-------|-------|-------|-------|-------|
| Av. Daily Flow (mgd) | 0.001 | 0.008 | 0.003 | 0.006 | 0.014 | 0.246 |
| BOD (5-day) lb./day | 5 | 26 | 27 | 27 | 55 | 2645 |
| TSS lb/day | 5 | 21 | 3 | 13 | 51 | 1929 |

| Parameter | Jul | Aug | Sep | Oct | Nov | Dec |
|----------------------|-------|--------|--------|--------|--------|-------|
| Av. Daily Flow (mgd) | 0.400 | 0.671 | 0.722 | 0.926 | 0.662 | 0.062 |
| BOD (5-day) lb./day | 2052 | 53,499 | 44,807 | 48,424 | 15,977 | 254 |
| TSS lb/day | 1743 | 19,385 | 16,044 | 19,185 | 6485 | 248 |

The pH of the effluent is required to be within the range of 5 to 11 at all times. Due to the nature of the process line effluent, continuous accurate monitoring by the City is impossible. The pH probe is rapidly fouled by the effluent. The City's probe is cleaned and calibrated routinely through out the day, when the plant is processing. When probe telemetry indicates an out of compliance pH value, the probe is cleaned and recalibrated and then placed back in the waste stream. If the probe then indicates an out of compliance pH value the City will make a determination that a violation has occurred. The Permittee tracks pH by grab sample on a regular basis through out the day when processing. This means that reportable violations of the pH limitation in effect can come from two sources; either from determination made by the City or from the Permittee's grab sample. The highest and lowest daily pH value will be reported from both sampling sources.

Pollutant concentrations in the proposed discharge with technology-based controls in place should not cause problems at the receiving POTW, such as interference, pass-through or hazardous exposure to POTW workers, nor should it result in unacceptable pollutant levels in the POTW's sludge.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)).

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S4. as authorized under RCW 90.48.110, WAC 173-220-150, Chapter 173-230 WAC, and WAC 173-240-080. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances, which cause pass-through or interference; pollutants, which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the State from leachate of solid waste.

The proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop and submit to the Department a solid waste plan to prevent solid waste from causing pollution of waters of the State. The plan must also be submitted to the local solid waste permitting agency for approval.

GENERAL CONDITIONS

General Conditions are based directly on State laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this proposed permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

The proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for 5 years.

APPENDIX A -- PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on date and date in name of publication to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on date, in name of publication to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and the reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or

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deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 509/457-7105, or by writing to the address listed above.

This permit was written by Richard Marcley.

APPENDIX B -- GLOSSARY

AKART--An acronym for "all known, available, and reasonable methods of prevention, control, and treatment" and includes best management practices as may be stipulated by the Department.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation--The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards --National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Engineering Report--A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference--A discharge which, alone or in conjunction with a discharge or discharges from other sources, either: (1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; or (2) therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal.

Local Limits--Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through--The discharge of pollutants through a municipal sewerage system into waters of the State in quantities or concentrations which are a cause or significantly contribute to a violation of any requirement of water quality standards for waters of the State of Washington, or of the NPDES permit or State waste discharge permit, including an increase in the magnitude or duration of the violation.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU)--Industrial dischargers to a POTW that have effluent limitations defined in a category (40 CFR 403.6 and 40 CFR Chapter I, subchapter N). However, the control authority may make a determination that even though an industrial user belongs to a category that has effluent limits for pretreatment, that industry is not a significant industrial because there is no reasonable potential for affecting the POTW's operation. A SIU may also be any other industrial user that: 1. discharges an average of 25,000 gallons per day or more of process water, 2. makes up more than 5 percent of the average hydraulic flow (dry weather) or 5 percent of the organic capacity of the plant, or 3. the control authority believes has a reasonable potential to adversely affect the POTW's operation.

Slug Discharge—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

State Waters--Lakes, rivers, ponds, streams, wetlands, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria--A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids--That portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C -- RESPONSE TO COMMENTS